SASKATCHEWAN HEALTH RESEARCH BOARD

ANNUAL REPORT

Period ending March 31, 1987

—Saskatchewan Health Research Board—

#5 — 3002 Louise Street
Saskatoon, Saskatchewan
S7J 3L8 (306) 373-5575

February 1988

The Hon. George McLeod
Minister of Health
Legislative Building
Regina, Saskatchewan
S4S 0B3

Sir:

I beg to present herewith for your consideration the Annual Report of the Saskatchewan Health Research Board for the fiscal year ending March 31, 1987.

Respectfully submitted

D. D. Johnson

Dr. D. D. Johnson
Chairman

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1. CHAIRMAN'S STATEMENT

HEALTH RESEARCH IN SASKATCHEWAN: AN OVERVIEW

The Saskatchewan Health Research Board (SHRB) concluded its eighth year of operation in 1986-87. The Board initiated some significant changes during the year as it approached a critical stage in its history and development.

First, the Board continued the process of restructuring its programs in order to devote its severely limited resources to areas in greatest need. For the first time the Board did not hold a competition for Training Fellowships for graduate students in 1986-87. Both provincial universities have a mandate to support graduate education. Both universities have underdeveloped graduate programs compared to their counterparts elsewhere in Canada. The Board believes that the number of graduate students in the health sciences must grow if the research environment is to flourish. However, the Board must concentrate its own funds in areas where it can make the greatest impact, and the roughly $200,000 previously allocated to graduate student funding did not significantly alter the overall situation. We were advised with near unanimity that unless we were given both an explicit mandate and adequate funding to develop health science graduate programs, our funds should be reallocated to other key programs.

Accordingly, the Board restricted itself to four programs: Establishment Grants for new investigators; Research (Postdoctoral) Fellowships; Equipment Grants; and Socio-Health Research Grants. Mainly because of the composition of the research community in Saskatchewan, the first three programs benefit primarily biomedical researchers. The Socio-Health Research Program has no restrictions on eligibility in order to enhance opportunities in this area. After considerable consultation and self-examination, the Board is now confident that these four major program areas are precisely those which are of greatest benefit to the research community, again given the unfortunate fact of inadequate overall funding.

As reported in the 1985-86 Annual Report, the Board continued to develop the concept of supporting larger-scale research efforts in multidisciplinary groups. In July 1986 the Board published the rationale and guidelines of the Strategic and Matching Grants Program. The Program drew widespread interest, and the first major awards will be made in the Fall of 1987. This very significant initiative is described more fully elsewhere in this report.

Third, the Board has taken the lead in sponsoring CONNECTIONS '88: First International Symposium - Research and Public Policy on Aging and Health, to be held in Saskatoon in February 1988. In 1985-86 the Board received a small grant ($100,000) to stimulate gerontology research in the province. After holding a necessarily

limited competition the Board decided that a world-class conference would be an excellent vehicle for demonstrating the benefits of gerontology research and stimulating the local research community to take a greater interest in the field. In order that the conference has a practical as well as stimulating intellectual effect, the theme chosen reflects the desire to promote stronger ties between research and policy-making activities, which will benefit both the academic and decision-making sectors.

Last year I reported at some length on the relatively underdeveloped state of health research in Saskatchewan, and the likelihood that our comparative disadvantage will persist in the absence of significant new funding. The Board's roughly million dollar annual budget contrasts starkly with its enormous formal mandate and the growing quality in needs of the provincial research community. Through a combination of drawing down the capital reserves and annual government appropriations of from zero to $.5 million, the Board has spent approximately $1 million annually in recent years. While this expenditure level is now somewhat of a tradition, it is entirely insignificant compared to what would be needed to make Saskatchewan competitive with other provinces in health research activity and prominence.

In order to support significant new initiatives despite the constraints of its budget, the Board set aside $200,000 for each of fiscal years 1986-87 through 1990-91 for the Strategic and Matching Grants Program. This reallocation of funds unavoidably reduces the amount available for the important base-building programs. Furthermore, the allocation of $1 million over five years to one to three groups is by no means a major commitment using other provincial and national standards. Major multidisciplinary groups at the leading edge of their fields not infrequently receive from $1 to $2 million annually. Hence the limitations inherent in this comparatively major development from the Board's perspective are evident.

The maximum amount of money the Board has received in the last three years is $500,000. After the Reserves are virtually exhausted in 1987-88, the Board will need double this amount simply to maintain expenditures at traditional levels. Realistically, however, the Board cannot operate either as effectively or efficiently as possible without $5 to $10 million annually. Lest this figure seem excessive, one need only note that the Alberta Heritage Foundation for Medical Research spends over $50 million annually, and that total health research expenditures in Saskatchewan are substantially less than half those in the nearest competitive province: Manitoba.

The health system is a major sector in society, and among other things identifiable public expenditures on health care comprise over thirty percent of the provincial budget. Research and development in health are important, just as R & D is essential to

success in heavy industry and other aspects of science. Most successful industrialized countries try to target roughly two percent of the gross national product on research and development. If the provincial government allocated only one percent of the health budget towards research, the annual budget would be $13 million. When one considers only that the $1.3 billion spent annually in Saskatchewan by the government on health care is so rarely and incompletely evaluated, the prospects for achieving good returns on research expenditures in this area alone seem unusually bright. These efficiencies would be a welcome addition to a province in difficult financial circumstances, not to mention the importance of adding to the store of fundamental and applied scientific knowledge without which health systems invariably deteriorate.

This is very likely my final report as Chairman of the Board, as other commitments have made it appropriate for me to step down. I am confident to report to the Minister that the Board is capable of planning and managing major new initiatives which would have a beneficial effect on the health research activity in the province directly, and on the health system indirectly. The Board has always found itself in the position of possessing far more capacity to fulfill its mandate than its resources would allow. It is my hope that my successor and his or her colleagues on the Board will benefit from a renewed understanding on the part of Government that a vastly expanded health research budget is not a luxury, but a necessity. There is a tremendous difference between creating knowledge in an intellectually stimulating environment, and trying to adapt imported knowledge to an environment without a strong scientific presence. The best health care practitioners and practices flourish in areas where science is properly supported. The SHRB cannot begin to fulfill its legislated mandate without an entirely new order of funding.

The Board realizes that such funding will never be forthcoming as long as health research is forced to compete with the provision of health services in the resource allocation process within government. Obviously there are different and more immediate pressures for direct service delivery, and it is improbable that there will be a great deal of publicly expressed sentiment or media coverage of shortcomings in health research compared, say, to a perceived shortage of beds. Increased funding for health research will not have the same immediately visible impact as opening a new hospital wing. Funding health research represents a fundamental long-term commitment whose benefits are different in kind and visibility from those resulting from direct expenditures on services. If Saskatchewan is to make that fundamental commitment, health research must not be conceived as an optional adjunct to the system, to be constrained or cut back when general economic conditions are less than favourable.

Whether or not the Government of Saskatchewan is prepared to make a fundamental commitment to health research is an open question.

In my view, it is time that the Board received a clear signal as to the nature and extent of any commitment that will be forthcoming. A strong commitment, backed by adequate funding, will permit the Board to make a difference in this province. The traditional level of commitment and funding will not suffice. The first step towards achieving this level of commitment is to make health research a high priority subject for discussion and debate within and outside of Government. The Board, as always, will be pleased to enter into such discussion and as we have done over the years, to advance and document the case for a prominent health research thrust in Saskatchewan.

D. D. Johnson

Dr. D. D. Johnson, Chairman

2. LEGISLATIVE AUTHORITY AND MANDATE

The SHRB was established as a corporate body under The Health Research Act, proclaimed September 15, 1979, to administer the Saskatchewan Health Research Fund. The Board was empowered under the Act to "assist and stimulate research in the healing arts and health sciences including:

- the causes, detection, distribution, prevention and management of human illness and disabling conditions;
- health maintenance and health promotion;
- the social, environmental, and biological aspects of the human aging process;
- the utilization of health services."

The Board is to consist of at least six and not more than twelve members appointed by the Lieutenant Governor in Council who are residents of Saskatchewan as follows: two representatives from the health sciences or healing arts in the University of Saskatchewan; one from the University of Regina; one member from the Saskatchewan Department of Advanced Education and Manpower (now Department of Education); one member from the Saskatchewan Department of Health; and up to seven others. Both the Chairman and Vice-Chairman are designated by the Lieutenant Governor in Council. Appendix 1 lists the members who served on the Board during 1986-87.

3. THE SASKATCHEWAN HEALTH RESEARCH FUND

With the proclamation of the Act, the Saskatchewan Health Research Fund came into being for the purpose of assisting and stimulating research in the healing arts and health sciences. Through 1983-84 the Board was required to accumulate a capital fund of unspent reserves which at its maximum level reached $1,560,000. Since then the Board has been authorized to spend down the capital fund; the general operating grant for 1984-85 was zero, for 1985-86 was $400,000, and for 1986-87 was $500,000. (A special grant of $100,000 was also received during 1985-86 to hold a Gerontology Research Competition.) Attached as Appendix 2 are the financial statements which detail the financial transactions of the Board as certified by the Provincial Auditor.

4. COMPETITIONS AND AWARD CATEGORIES

The Board awards grants on the basis of an annual general competition, occasionally augmented by special competitions when funding is available. The seventh competition, with a closing date of March 15, 1986, incorporated a restructuring of Board programs designed to emphasize those areas in greatest need of development given limited funding. Accordingly applications were solicited in the following categories:

1. Establishment Grants to assist new researchers in becoming established in the province, to a maximum of $30,000 per annum for up to two years, non-renewable.

2. Research Fellowships for holders of a doctorate degree who wish to develop their fields of research and equip themselves for independent investigation in institutions in Saskatchewan, valued at $22,200 in the first year and $23,700 in the second year, renewable in some circumstances for a third year upon reapplication with a value of 25,200. These rates reflect the Board's decision to set stipends commensurate in value with those of the Medical Research Council of Canada.

3. Socio-Health Research Grants of up to $30,000 per year for up to two years, non-renewable, open to all socio-health researchers in Saskatchewan.

4. Equipment Grants of up to $30,000 to provide new or essential replacement items for proven investigators with active research programs and operating grants.

5. COMPETITION AND REVIEW PROCESS

The Board uses peer review as the major basis for the granting of awards. Appendices 3A, 3B, and 3C list the membership of the Biomedical, Socio-Health, and Personnel Awards Review Committees respectively during 1986-87. Each committee is chaired by a member of the Board, but all other members are drawn from the research community.

The review committees examine, adjudicate, and rank the applications received, and make recommendations to the Board on the order of funding priorities. Research grant applications are sent to two out-of-province experts for assessment. Personnel awards applications are assessed by the committees only. The Board receives the reports of the review committees and retains final authority to make all appropriations after considering the recommendations of its review committees.

6. PROFILE OF THE SEVENTH GENERAL COMPETITION (1986-87)

Table 1 summarizes the total number of applications, the numbers recommended for funding by the review committees, and the ultimate funding decisions of the Board.

TABLE 1

SUMMARY OF ELIGIBLE APPLICATIONS
RECEIVED, RECOMMENDED, AND FUNDED
COMPETITION 7 (1986-87)

	APPL. RECEIVED		APPL. RECOMMENDED		APPL. FUNDED	
GRANT CATEGORY	No.	$ Requested	No.	$ Requested	No.	$ Awarded
Biomed. Establ.	6	289,183	6	251,618	5	224,418
Biomed. Equip	6	136,322	6	136,322	4	47,256
BIOMED. SUBTOTALS	12	$ 425,505	12	$ 387,940	9	$ 271,674
Socio-Health Research	16	$ 540,649	12	$ 237,010	9	$ 188,217
Socio-Health Equip.	1	4,523	-	-	-	-
SOCIO-HEALTH SUBTOT.	17	$ 545,172	12	$ 237,010	9	$ 188,217
Research Fell.	11	507,900	8	370,200	6	$ 278,400
Conference Grants	1	$ 3,390	1	$ 3,390	1	$ 3,390
GRAND TOTALS	**41**	**$ 1,481,967**	**33**	**$ 998,540**	**25**	**$ 741,681**

As is historically the case, the number of applications received and the dollar amounts requested are in no way a reflection of the demand for health research dollars in Saskatchewan. The Board severely limits eligibility for grants in order to maintain a reasonable relationship between supply of and demand for funding. Most biomedical researchers in the province are not eligible for SHRB awards, as Establishment Grants are restricted to new investigators. The Board terminated its graduate student support program due to lack of funds. The maximum grant is $60,000 over

two years, which is well below the average grant awarded by national agencies.

The grants and awards arising from the 1986 competition are listed in Appendix 4.

7. STRATEGIC AND MATCHING GRANTS COMPETITION

During its consultations with the research community in 1985-86 the Board identified a need for a program which would assist Saskatchewan in becoming more competitive in the contemporary health research environment. In the past decade in particular, health research has advanced primarily through collaborative efforts among high quality investigators working as multidisciplinary teams. Increasingly, major breakthroughs occur in what are commonly known as "centres of excellence."

Centres of excellence require a great deal of talent and money - a biomedical research group working in an important area can easily require $2 million annually. Not only do centres of excellence produce first rate science which contributes to the betterment of human health; they also provide a high profile focus for health research in their institutions and communities, which enhances the calibre of the overall scientific environment. The Board has concluded that the development of what might eventually be centres of excellence should be strongly encouraged in Saskatchewan, and the Strategic and Matching Grants Program constitutes a point of departure for such initiatives.

Given the Board's limited resources it cannot establish centres of excellence by itself. The main purpose of the Strategic and Matching Grants Program is to provide sufficient resouces over an initial period of time to allow groups of investigators to develop more fully than would be the case if they continued to work in relative isolation. As has been demonstrated elsewhere, initial research dollars strategically invested generate considerable external funding from granting agencies, foundations, etc. (The provincial granting agency in Quebec has calculated a return of six dollars in external grants for every dollar it spends.) Eventually, the initial funding provided by the SHRB over a three- to five-year period is expected to increase the capacity and performance of research groups to the point where they can realistically compete for large scale, national funding on a collaborative basis.

In July 1986 the Board published its Information Bulletin outlining the intent and procedures of the program. The first step was to solicit Preliminary Letters of Intent in which investigators indicated their general areas of interest, their proposed approach, and a very general plan for the first few years of operation. The response was overwhelming: the Board received

eighteen Letters of Intent requesting approximately $20 million over five years in total. There can be no more significant indication of the range and ambition of the Saskatchewan health research community were sufficient dollars available.

From the initial eighteen proposals nine groups were selected for interviews. These were held over a two-day period in February 1987. This group of nine was reduced to three from which detailed scientific proposals have been requested. The written applications were due September 1, 1987, and during October site visitors who are experts in the respective fields from other provinces provided a final examination of the groups. The Board will make its initial awards totalling $1 million over a maximum of five years beginning November 1987.

The enthusiasm with which the research community responded to the strategic and matching grants concept indicates the vast and largely untapped potential for health research in the province. Ideally the Board in the future would operate on three major fronts: the establishment of new biomedical investigators in the province through the Establishment Grant and Research Fellowship programs; the continued development of the socio-health research community; and the development of research groups and eventually centres of excellence so that Saskatchewan might take its place as a leader in health research in certain key areas, some of which might have particular local relevance. As always, this will require a very substantial increase in funding.

The 1987-88 Annual Report will report on the concluding aspects of the Strategic and Matching Grants Competition.

8. INTERNATIONAL GERONTOLOGY RESEARCH SYMPOSIUM

In 1985-86 the Board held a limited gerontology research competition after receiving a special grant of $100,000 from the Minister of Health for this purpose. The competition drew a small response, and the Board concluded that there was simply too small a base for gerontology research in Saskatchewan to expect major research initiatives to come forward. With the funds remaining the Board determined that a conference featuring crucial discussions in gerontology research and its application to public policy would be beneficial not only in itself, but as a stimulus for encouraging Saskatchewan researchers to become interested and expert in the area.

From the initial concept of a limited research symposium has grown CONNECTIONS '88: First Internation Symposium - Research and Public Policy on Aging and Health. The research community will, it is presumed, respond better to a genuinely excellent array of topics, keynote speakers, presenters, panels, and discussions than to a more limited symposium. Exposure to leading edge research

and debate should have both immediate and longer-term benefits, and as the lead sponsor for the event, the Board has broadened its strategy for enhancing the research profile of the province.

9. LOW-LEVEL RADIATION RESEARCH FUND

The low-level radiation research program, established in 1980 by special agreement between the Minister of Health and the Board, has been effectively dormant since 1982. From time to time the Board has requested clarification of the status of the Low-Level Radiation Research Fund from the Department of Health. On the basis of ongoing discussions and the pressing need for funds for the mainstream programs, the Board during 1986-87 officially terminated the Low-Level Radiation Fund as a separate entity, with the remaining funds (approximately $400,000) rolled into the General Fund. This transfer of funds reflects both the Board's own priorities, and its understanding of the government's view that the decision represents the best response to the financial conditions which have existed over the past few years.

APPENDIX 1

SASKATCHEWAN HEALTH RESEARCH BOARD
APRIL 1, 1986 THROUGH MARCH 31, 1987

JOHNSON, Dr. Dennis (Chairman)
Department of Pharmacology
College of Medicine
University of Saskatchewan
SASKATOON, Saskatchewan

HORLICK, Dr. Lou (Vice-Chairman)
Department of Medicine
College of Medicine
University of Saskatchewan
SASKATOON, Saskatchewan

BALA, Dr. Marvin
Department of Medicine
College of Medicine
University of Saskatchewan
SASKATOON, Saskatchewan

BOAN, Dr. John
Department of Economics
University of Regina
REGINA, Saskatchewan

HICKIE, Dr. Robert
Department of Pharmacology
College of Medicine
University of Saskatchewan
SASKATOON, Saskatchewan

HINDMARSH, Dr. Wayne
College of Pharmacy
University of Saskatchewan
SASKATOON, Saskatchewan

MATTHEWS, Dr. Peter
Department of Psychiatry
College of Medicine
University of Saskatchewan
SASKATOON, Saskatchewan

McKENDRY, Dr. John
Department of Advanced
Education and Manpower
Government of Saskatchewan
REGINA, Saskatchewan
(until April 30, 1986)

RIDLEY, Dean Una
College of Nursing
University of Saskatchewan
SASKATOON, Saskatchewan

ROBERTSON, Dr. Bev
Department of Physics &
Astronomy
University of Regina
REGINA, Saskatchewan

RUTTER, Dr. Laura
820 Colony Street
SASKATOON, Saskatchewan
(effective April 30, 1986)
(until September 15, 1986)

WOLSTENHOLME, Mr. James
Department of Health
Government of Saskatchewan
REGINA, Saskatchewan

WRIGHT, Dr. Don
Department of Advanced
Education and Manpower
Government of Saskatchewan
REGINA, Saskatchewan
(effective April 30, 1986)

APPENDIX 2

FINANCIAL STATEMENTS

AND

THE AUDITOR'S REPORT THEREON

SASKATCHEWAN HEALTH RESEARCH BOARD

FINANCIAL STATEMENTS

Year Ended March 31, 1987

OFFICE OF THE PROVINCIAL AUDITOR

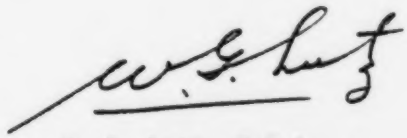
REGINA, SASKATCHEWAN

AUDITOR'S REPORT

To the Members of the Legislative Assembly
Province of Saskatchewan

I have examined the balance sheet of the Saskatchewan Health Research Board as at March 31, 1987 and the statements of revenue, expenditure and fund balance and changes in financial position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Board as at March 31, 1987 and the results of its operations and the changes in its financial position for the year then ended in accordance with the accounting principles disclosed in Note 2 to the financial statements applied on a basis consistent with that of the preceding year.



Regina, Saskatchewan,
June 11, 1987.

W. G. Lutz, F.C.A.,
Provincial Auditor.

Statement 1

SASKATCHEWAN HEALTH RESEARCH BOARD

BALANCE SHEET

As at March 31

	1987				1986
	General Fund	Radiation Fund	Gerontology Fund	Total	Total
ASSETS					
Cash (Cash less outstanding cheques)	$ (39,501)	$ -	$13,776	$ (25,725)	$ 16,523
Accrued interest receivable	19,401	-	533	19,934	9,464
Inter-fund receivable (payable)	(21,385)	-	21,385	-	-
Investments, at cost which approximates market value	1,477,379	-	-	1,477,379	1,476,844
Fixed assets	17,774	-	-	17,774	18,102
Other assets	1,153	-	-	1,153	1,146
	$1,454,821	$ -	$35,694	$1,490,515	$1,522,079
LIABILITIES AND EQUITY					
Liabilities:					
Grants payable	$ 720,694	$ -	$ 4,000	$ 724,694	$ 622,248
Equity:					
Equity in fixed assets	17,774	-	-	17,774	18,102
Fund balance (Statement 2)	716,353	-	31,694	748,047	881,729
	734,127	-	31,694	765,821	899,831
	$1,454,821	$ -	$35,694	$1,490,515	$1,522,079

(See accompanying notes to the financial statements)

Statement 2

SASKATCHEWAN HEALTH RESEARCH BOARD

STATEMENT OF REVENUE, EXPENDITURE AND FUND BALANCE

Year Ended March 31

	1987				1986
	General Fund	Radiation Fund	Gerontology Fund	Total	Total
Revenue:					
Grant-Department of Health	$500,000	$ -	$ -	$500,000	$ 500,000
Interest	123,160	25,181	532	148,873	185,203
Other	650	-	2,000	2,650	-
	623,810	25,181	2,532	651,523	685,203
Expenditure:					
Research grants	704,281	-	(17,400)	686,881	940,684
Wages and benefits	65,517	-	-	65,517	64,434
Administrative and operating expenses	8,467	95	-	8,562	8,326
Honoraria and expenses of the board and committees	11,452	-	227	11,679	13,768
Furniture and fixtures	917	-	-	917	2,415
Rent	11,649	-	-	11,649	11,091
	802,283	95	(17,173)	785,205	1,040,718
Excess of revenue over expenditure	(178,473)	25,086	19,705	(133,682)	(355,515)
Fund balance, beginning of year	469,852	399,888	11,989	881,729	1,237,244
Inter-fund transfer (Note 1)	424,974	(424,974)	-	-	-
Fund balance, end of year - to Statement 1	$716,353	$ -	$31,694	$748,047	$ 881,729

(See accompanying notes to the financial statements)

Statement 3

SASKATCHEWAN HEALTH RESEARCH BOARD

STATEMENT OF CHANGES IN FINANCIAL POSITION

Year Ended March 31

	1987				1986
	General Fund	Radiation Fund	Gerontology Fund	Total	Total
Cash provided by (used in):					
Operating Activities:					
Grant receipts	$ 500,000	$ -	$ -	$ 500,000	$ 500,000
Interest and other receipts	110,207	28,848	2,000	141,055	246,802
Grants paid	(515,455)	(3,981)	(65,000)	(584,436)	(991,534)
Other disbursements	(98,008)	(95)	(228)	(98,331)	(100,083)
Decrease(increase) in inter-fund receivable	(74,975)	(2,029)	77,004	-	-
Inter-fund transfer	424,974	(424,974)	-	-	-
	346,743	(402,231)	13,776	(41,712)	(344,815)
Investment Activities:					
Proceeds from matured investments	5,083,811	1,141,523	-	6,225,334	8,066,398
Purchase of investments	(5,483,301)	(742,569)	-	(6,225,870)	(7,717,807)
	(399,490)	398,954	-	(536)	348,591
Increase(decrease) in cash during the year	(52,747)	(3,277)	13,776	(42,248)	3,776
Cash balance, beginning of year	13,246	3,277	-	16,523	12,747
Cash balance, end of of year	$ (39,501)	$ -	$13,776	$ (25,725)	$ 16,523

(See accompanying notes to the financial statements)

SASKATCHEWAN HEALTH RESEARCH BOARD

NOTES TO THE FINANCIAL STATEMENTS

March 31, 1987

1. Authority

The Saskatchewan Health Research Board was established under the provisions of The Health Research Act for the purpose of assisting and stimulating research in the healing arts and health sciences. Pursuant to proclamation of the Act, the Board came into being on September 15, 1979. During 1981 the Board was awarded status as a registered charity under The Income Tax Act.

Under The Health Research Act, the Saskatchewan Health Research Fund was also established, through which all transactions of the Board are conducted. This Fund is comprised of three components, two of which were created to separately account for the revenues and expenditures pertaining to specific programs, as identified below.

The Radiation Fund was established in the 1981 fiscal year pursuant to an agreement entered into between the Department of Health and the Saskatchewan Health Research Board under which the Board agreed to administer and allocate monies received from the Department. The agreement also provided that the use of these funds be restricted to radiation research and costs incurred in administering and allocating the funds. Following direction from the Minister of Health to begin drawing down on the Radiation Fund to support general research and administrative overhead, the Board, on January 22, 1987, approved the termination of the Radiation Fund and the transfer of the remaining fund balance to the General Fund. In 1986, the Gerontology Fund was established under similar conditions as the Radiation Fund.

2. Accounting Policies

(a) Fund Accounting

The Saskatchewan Health Research Board follows fund accounting procedures in which a self-balancing group of accounts is provided for each Fund.

(b) Research Grants

The Saskatchewan Health Research Board holds annual competitions through which funds are awarded to successful applicants for terms of up to two years. The Board follows the policy of recording the grant awards approved and committed during the year as expenditures. At year end, awards which have not been paid to individuals or to institutions administering awards on behalf of researchers but which are still committed for a competition are shown as grants payable on the balance sheet. The balance of funds advanced to administering institutions in excess of the current requirements of researchers is

held in trust by those institutions until drawn down by the researchers. In the event of the completion or termination of a project, or non-compliance with the terms of an award, the balance of unexpended funds is treated as a reduction of grant expenditure in the year that this is determined. These funds are then available to be awarded for future research.

(c) Fixed Assets

Fixed asset purchases are charged as an expense against operations in the year of purchase and are therefore not depreciated. All fixed asset additions charged to expense are reflected in the statement of revenue, expenditure and fund balance. To reflect accountability for fixed assets in the financial statements, it is necessary to record them as balance sheet assets with a corresponding entry to "Equity in Fixed Assets". On disposition, the original cost of fixed assets is removed from the fixed assets and equity in fixed assets accounts and proceeds are recorded as other revenue.

(d) Investments

Investments are recorded at cost.

3. Cash and Investments

In accordance with a request of the Department of Health, the Board agreed to retain portions of Provincial grants provided in previous years to the General Fund as invested capital. During 1984/85, the Department authorized the Board to begin drawing down on these accumulated funds to support current expenditures for research and administration. Accordingly, the Board considers that, of the cash and investments balance at March 31, 1987, $469,852 was being retained as invested capital of the General Fund (March 31, 1986 - $469,852).

	Retained (Drawn Down)
1979/80	$500,000
1980/81	500,000
1981/82	250,000
1982/83	175,000
1983/84	135,000
1984/85	(688,546)
1985/86	(401,602)
1986/87	-
	$469,852

4. Commitments

As at March 31, 1987, the Board was committed to a lease agreement for office premises with payments of $878 per month to July 31, 1987.

APPENDIX 3A

SASKATCHEWAN HEALTH RESEARCH BOARD
BIOMEDICAL REVIEW COMMITTEE
COMPETITION 7 (1988)

HICKIE, Dr. R. (Chairman) (1)
Department of Pharmacology
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

ALBRITTON, Dr. W. (2)
Department of Microbiology
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

CARD, Dr. R. (1)
Department of Medicine
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

FLOOD, Dr. P. (1)
Dept. of Veterinary Anatomy
Western Coll. of Vet. Med.
University of Saskatchewan
Saskatoon, Saskatchewan

HUBBARD, Dr. J. (3)
College of Pharmacy
University of Saskatchewan
Saskatoon, Saskatchewan

KELLN, Dr. R. (2)
Department of Chemistry
University of Regina
Regina, Saskatchewan

KHANDELWAL, Dr. R. (3)
Department of Biochemistry
College of Medicine
University of Saskatchewan
Saskatoon, Saskakchewan

KOMIYAMA, Dr. K. (1)
College of Dentistry
University of Saskatchewan
Saskatoon, Saskatchewan

McDUFFIE, Dr. N. (3)
Department of Physiology
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

MISRA, Dr. V. (2)
Dept. of Vet. Microbiology
Western Coll. of Vet. Med.
University of Saskatchewan
Saskatoon, Saskatchewan

RICHARDSON, Dr. S. (1)
Department of Pharmacology
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

SKINNIDER, Dr. L. (3)
Department of Pathology
College of Medicine
Saskatoon, Saskatchewan

Figure in parenthesis indicates consecutive number of years served, including the current competition.

APPENDIX 3B

SASKATCHEWAN HEALTH RESEARCH BOARD
SOCIO-HEALTH REVIEW COMMITTEE
COMPETITION 7 (1986)

Boan, Dr. J. A. (1)
Department of Economics
University of Regina
Regina, Saskatchewan

Alexander, Dr. J. (2)
Department of Economics
University of Regina
Regina, Saskatchewan

Fritz, Mr. W. (3)
Policy Research & Management
Services Branch
Saskatchewan Health
T. C. Douglas Building
3475 Albert Street
Regina, Saskatchewan

Grant, Dr. P. (2)
Department of Psychology
University of Saskatchewan
Saskatoon, Saskatchewan

Hemingway, Dr. P. (1)
Department of Educ.Psychology
Faculty of Education
University of Regina
Regina, Saskatchewan

Knowles Brian, Ms. J. (2)
Knowles Brian Consulting
Box 38
Grand Coulee, Sask.

Li, Dr. P. (1)
Department of Sociology
University of Saskatchewan
Saskatoon, Saskatchewan

Neufeld, Dr. A. (2)
College of Nursing
University of Saskatchewan
Saskatoon, Saskatchewan

Stange, Dr. K. H. (3)
Faculty of Social Work
University of Regina
Regina, Saskatchewan

Tan, Dr. L. (2)
Dept. of Soc. & Prev. Medicine
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

Wetzel, Dr. K. (1)
Dept. of Industrial Relations
& Organizational Behaviour
College of Commerce
University of Saskatchewan
Saskatoon, Saskatchewan

Figure in parenthesis indicates consecutive number of years served, including the current competition

APPENDIX 3C

SASKATCHEWAN HEALTH RESEARCH BOARD
PERSONNEL AWARDS REVIEW COMMITTEE
COMPETITION 7 (1986)

Robertson, Dr. B. (Chairman) (1)
Department of Physics & Astronomy
University of Regina
Regina, Saskatchewan

Bertrand, Dr. H. (1)
Department of Biology
University of Regina
Regina, Saskatchewan

Delbaere, Dr. L. (2)
Department of Biochemistry
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

Evered, Dr. M. D. (1)
Department of Physiology
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

Hertz, Dr. L. (1)
Department of Pharmacology
College of Medicine
University of Saskatchewan
Saskatoon, Saskatchewan

Maslany, Dr. G. (3)
Faculty of Social Work
University of Regina
Regina, Saskatchewan

Mirwald, Dr. R. L. (3)
College of Physical Education
University of Saskatchewan
Saskatoon, Saskatchewan

Murphy, Dr. B. D. (3)
Department of Biology
University of Saskatchewan
Saskatoon, Saskatchewan

Wallace, Dr. S. M. (1)
College of Pharmacy
University of Saskatchewan
Saskatoon, Saskatchewan

Figure in parenthesis indicates consecutive number of years served, including the current competition

SASKATCHEWAN HEALTH RESEARCH BOARD
AWARDS GRANTED
COMPETITION 7 (1986)

RESEARCH FELLOWSHIPS

Celuch, Stella M. (Juorio, A.V.) Psychiatric Research Division, Saskatchewan Health Effects of trace amines in peripheral tissue	$22,200 23,700	86-87 87-88
Docherty, John C. (Wilson, T.W.) Pharmacology, University of Saskatchewan The synthesis of the various leukotrienes in disease states involving inflammation and immediate hypersensitivity	22,200 23,700	86-87 87-88
Martin, Alan D. (Bailey, D.A., Houston, C.S.) Physical Education, University of Saskatchewan A randomized controlled trial of the effects of calcium supplementation and physical activity on bone density in young women	22,200 23,700	86-87 87-88
Matera, Giovanni, M.D. (Ng, S.K.) Microbiology, University of Saskatchewan Metabolism of the lipopolysaccharide (LPS) by oral bacteria and biological effects on the host of LPS	22,200 23,700	86-87 87-88
Orikasa, Shuzo (Boulton, A.A.) Psychiatric Research Division, Saskatchewan Health Effects of tyramine-containing perfusate on behavioural asymetry and neurochemical release in freely-moving rats	23,700 25,200	86-87 87-88
Prasad, Lata (Delbaere, L.T.J.) Biochemistry, University of Saskatchewan To solve the crystal structure of the bacterial enzyme staphylococcal protease and to correlate this molecular structure with the remarkable properties and biological function of the enzyme	22,200 23,700	86-87 87-88

BIOMEDICAL ESTABLISHMENT GRANTS

Bolter, Christopher P. Physiology, University of Saskatchewan Carotid sinus-sympathetic interaction in baroreflex regulation of blood pressure	28,836 18,548	86-87 87-88

AWARDS GRANTED, COMPETITION 7 (1986), (CONTINUED)

Doucette, Joseph R.	29,705	86-87
Anatomy, University of Saskatchewan	29,294	87-88
Prenatal astrocyte ontogenesis		
Gallagher, Charles G.		
Medicine, University of Saskatchewan	30,000	86-87
Control of breathing in health and disease	25,235	87-88
Hoover, Jeyaraj N.	2,800	86-87
Dentistry, University of Saskatchewan		
Effect of sanguinarine and chlorhexidine mouthrinses on salivary micro flora		
Munoz-Garcia, David	30,000	86-87
Pathology, University of Saskatchewan	30,000	87-88
Influence of cultured astrocytes on the growth of neurites from retinal explants		

SOCIO-HEALTH RESEARCH GRANTS

Alexander, Judith A., Boan, John A.	1,600	86-87
Economics, University of Regina		
In hospital pre-operative waiting time, an economic waste?		
Chartier, Brian	27,500	86-87
Psychology, St. Thomas More College, Saskatoon		
Men's coping with the death of a loved one		
Dickinson, Harley D.	27,500	86-87
Sociology, University of Saskatchewan		
Social and organizational variations of farm-related health hazards		
Kline, Rex B.	18,150	86-87
Psychology, University of Saskatchewan	14,300	87-88
Preventing teenage alcohol abuse: evaluation of a school-based intervention program		
MacDonald, Mary B.	6,731	86-87
Nursing, University of Saskatchewan	7,582	87-88
Lifestyles profile: controlled versus un-controlled hypertensives		
Stewart, Norma J.	14,102	86-87
Nursing, University of Saskatchewan	14,102	87-88
Evaluation of dance-movement therapy for depressed inpatients		

AWARDS GRANTED, COMPETITION 7 (1986), (CONTINUED)

Wetzel, Kurt Industrial Relations and Organizational Behaviour, University of Saskatchewan The impact of employing part-time and casual workers on union and employer commitment in the hospital industry	20,685 9,965	86-87 87-88
Wollert, Richard Psychology, University of Saskatchewan A survey and organizational analysis of self-help clearing houses	15,000	86-87
Wong, Stephen Psychology, University of Saskatchewan Psychophysiology of psychopathy	6,000 5,000	86-87 87-88

EQUIPMENT GRANTS

Bolter, Christopher Physiology, University of Saskatchewan Hewlett-Packard 4-channel tape recorder; FM cards; window discriminator	19,322	86-87
Dimmock, Jonathan R. Pharmacy, University of Saskatchewan Laminar flow hood	3,934	86-87
Goldie, Hughes Microbiology, University of Saskatchewan Fermenter assembly	15,000	86-87
Sulakhe, Prakash V. Physiology, University of Saskatchewan Video motion analyzer system	9,000	86-87

CONFERENCE GRANTS

Symposium on "The Convolution Method for Radiotherapy Dose Calculations - Project #737" September 1986	3,390	86-87